Claim Amendments

1. (currently amended) A system for providing data communications between a first digital subscriber line data device and a network switch comprising:

a pilot branch for communicating with the first digital subscriber line data device via pilot signals when the first digital subscriber line data device is in a sleep mode;

a data branch for providing data communications between the first digital subscriber line data device and the network switch when the first digital subscriber line data device is active; and

a controller circuit for monitoring the pilot signals and for switching the first digital subscriber line data device from the pilot branch to the data branch when the first digital subscriber line data device becomes active based on the pilot signals.

2. (original) The system as recited in claim 1 wherein the data communications are digital subscriber line communications.

3. (original) The system as recited in claim 2 wherein the data communications are asymmetric digital subscriber line communications.

4. (original) The system as recited in claim 3 wherein the asymmetric digital subscriber line communications are asymmetric digital subscriber line lite communications.

5. (currently amended) The system as recited in claim 1 controller circuit comprises:

a crosspoint device for switching the first digital subscriber line data device from the pilot branch to the data branch and for switching a second digital subscriber line data device from the data branch to the pilot branch when the first digital subscriber line data device is switched from the pilot branch to the data branch in response to the controller, and

wherein the controller circuit monitors operation of the second digital subscriber line data device and, based on the monitored operation, instructs the crosspoint device to switch the second digital subscriber line data device.

6. (currently amended) The system as recited in claim 5 wherein the controller circuit detects when the second digital subscriber line data device is inactive and instructs the crosspoint device to switch the second digital subscriber line data device from the data branch to the pilot branch when the second digital subscriber line data device is inactive.

7. (currently amended) The system as recited in claim 1 wherein the controller circuit comprises:

a receiver grid for switching data communications received from the first digital subscriber line data device to the network switch from the pilot branch to the data branch; and

a transmit grid for switching data communications transmitted from the network switch to the first digital subscriber line data device from the pilot branch to the data branch.

8. (original) The system as recited in claim 7 wherein the controller circuit comprises:

a controller for instructing the receiver grid and the transmit grid to switch the data communications based on the pilot signals.

9. (original) The system as recited in claim 1 wherein the pilot signals are single tone carrier signals.

10. (currently amended) A system for routing data transmitted over a digital subscriber line that couples a communication interface and an interface circuit comprising:

a pilot circuit transmitter for transmitting a pilot signal to the communication interface;

a crosspoint circuit for receiving a wake-up signal in response to the pilot signal from the interface circuit; and

a controller for determining a route of the wake-up signal over the digital subscriber line and for instructing the crosspoint circuit to transmit the wake-up signal in accordance with the determined route.

11. (original) The system as recited in claim 10 wherein the pilot signal is a single tone carrier signal.

12. (original) The system as recited in claim 10 comprising:

a data branch for providing data communications between the communication interface and the interface circuit; and

wherein the controller instructs the crosspoint circuit to transmit the wake-up signal to the data branch to establish the data communications between the communications interface and the interface circuit.

13. (original) The system as recited in claim 12 wherein the data branch comprises:

a XDSL transmitter for transmitting the data communications from the communication interface to the interface circuit; and

a XDSL receiver for receiving the data communications from the interface circuit via the communications interface.

14. (original) The system as recited in claim 12 wherein the data communications are digital subscriber line communications.

15. (original) The system as recited in claim 14 wherein the data communications are asymmetric digital subscriber line communications.

16. (original) The system as recited in claim 14 wherein the data communications are asymmetric digital subscriber line lite communications.

17. (original) The system as recited in claim 14 wherein the data communications are very high speed digital subscriber line communications.

18. (currently amended) A system for selectively establishing data communications between a plurality of digital subscriber line data devices and a network switch comprising:

a data branch for establishing the data communications between one or more of the digital subscriber line data devices and the network switch; and

a controller circuit for detecting when each of the digital subscriber line data devices is active or inactive and for connecting active ones of the digital subscriber line data devices to the data branch.

19. (currently amended) The system as recited in claim 18 wherein the controller circuit disconnects inactive ones of the digital subscriber line data devices from the data branch.

20. (currently amended) The system as recited in claim 19 comprising:

a pilot branch for communicating to inactive ones of the digital subscriber line data devices; and

wherein the controller circuit connects the inactive ones of the digital subscriber line data devices to the pilot branch.

21. (currently amended) The system as recited in claim 20 wherein the pilot branch communicates with the inactive ones of the digital subscriber line data devices through pilot signals, and

wherein the controller circuit monitors the pilot signals to detected when each of the digital subscriber line data devices is active or inactive.

22. (currently amended) The system as recited in claim 21 wherein the controller circuit detects whether any one of the digital subscriber line data devices connected to the data branch is inactive and switches the inactive one of the digital subscriber line data devices from the data branch to the pilot branch.

23. (currently amended) The system as recited in claim 18 wherein each of the digital subscriber line data devices transmits a wake-up signal when changing from inactive to active, and

wherein the controller circuit connects one of the digital subscriber line data devices to the data branch in response to a wake-up signal from the one of the digital subscriber line data devices.

24. (original) The system as recited in claim 18 wherein the data communications are digital subscriber line communications.

25. (original) The system as recited in claim 24 wherein the data communications are asymmetric digital subscriber line communications.

26. (original) The system as recited in claim 24 wherein the data communications are asymmetric digital subscriber line lite communications.

27. (currently amended) The system as recited in claim 18 wherein the controller circuit comprises:

a signal detector for detecting when communication signals are transmitted from inactive ones of the digital subscriber line data devices; and

a switch circuit for connecting the inactive ones of the digital subscriber line data devices transmitting the communication signals to the data branch.

28. (currently amended) A method for providing data communications between a digital subscriber line data device and a network interface comprising the steps of:

detecting when the digital subscriber line data device is active; and

connecting the digital subscriber line data device to a data branch to establish data communications between the active digital subscriber line data device and the network interface.

29. (currently amended) The method as recited in claim 28 comprising the steps of:

detecting when the digital subscriber line data device is inactive; and

disconnection the inactive digital subscriber line data device from the data branch.

30. (currently amended) The method as recited in claim 29 comprising the step of connecting the inactive digital subscriber line data device to a pilot branch.

31. (currently amended) The method as recited in claim 30 comprising the steps of:

communicating pilot signals between the inactive digital subscriber line data device and the pilot branch; and

monitoring the pilot signals to determine when the inactive digital subscriber line data device becomes active.

32. (original) The method as recited in claim 30 wherein the pilot signals are single tone carrier signals.

33. (original) The method as recited in claim 28 wherein the data communications are digital subscriber line communications.

34. (original) The method as recited in claim 33 wherein the data communications are asymmetric digital subscriber line communications.

35. (original) The method as recited in claim 33 wherein the data communications are asymmetric digital subscriber line lite communications.

36. (currently amended) The method as recited in claim 28 wherein the step of detecting comprises the step of:

detecting when a wake-up signal is transmitted between the data branch and the digital subscriber line data device to indicate that data communications should be established.

37. (currently amended) The method as recited in claim 36 wherein the step of detecting when a wake-up signal comprises the step of:

detecting when a signal is sent by the digital subscriber line data device indicating that the digital subscriber line data device desires to send data.

38. (currently amended) The method as recited in claim 37 wherein the step of detecting when a wake-up signal comprises the step of:

detecting when a signal is sent by the data branch indicating that the data branch desires to send data to the digital subscriber line data device.

39. (new) The system of claim 1, wherein the first digital subscriber line data device employs the pilot branch only while in the sleep mode;

wherein the first digital subscriber line data device employs the data branch only while in the active mode.

40. (new) The system of claim 10, wherein the pilot circuit transmitter transmits the pilot signal to the communication interface only while the communication interface is in a sleep mode.